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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/457,999	12/10/1999	UWE HUEBLER	P99.2413	8312

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SCHIFF, HARDIN & WAITE
PATENT DEPARTMENT
7100 SEARS TOWER
CHICAGO, IL 60606-6473

EXAMINER

CHARLES, DEBRA F

ART UNIT	PAPER NUMBER
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3628

DATE MAILED: 07/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/457,999

Applicant(s)

HUEBLER ET AL.

Examiner

Debra F. Charles

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification, as originally filed, does not provide support for the newly added limitation in claims 1 and 8, i.e., "without a stoppage".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1,2,3,4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukasa et al. (EP 458974 A1) and Hayashi (U.S. PAT. 4631021 A).

Re claim 1: Tsukasa et al. disclose a method for controlling a dynamic scale for processing items having respectively different formats, said dynamic scale having a motor-driven conveyor for moving a item, in a dynamic operating mode, in succession with continuous movement through an entry region of the scale, a weighing pan, and a discharge region of the scale, said method comprising the steps of:

in said dynamic operating mode, supplying an item to said entry region of the scale at a predetermined regulated conveying speed which is independent of the format of the item, and conveying said item through said entry region of the scale to said weighing pan and moving item from said weighing pan through said discharge region of said scale(Abstract, col. 2, lines 30-40, col. 35, lines 5-30, col. 37, lines 10-58, col. 38, lines 35-50, col. 39, lines 1-45);

Re claim 2: Tsukasa disclose maintaining said conveying speed at said predetermined, regulating conveying speed before a beginning of said measuring time span(col. 2, lines 40-col. 3, lines 6); sensing when said item is located in said entry region of the scale(col. 1, lines 40-58, col. 35, lines 5-20); and upon sensing that said item has exited said entry region of the scale, supplying unregulated voltage pulses to the motor driving said conveyor during said measuring time span to operate said conveyor with a predetermined power without regulation of said conveying speed(col. 2, lines 10-15,45-58, col. 33, line 30-col. 35, lines 20-50, col. 37, line 35-40).

As applied to claims 1 and 2: Tsukasa et al. do not explicitly disclose(s) deactivating regulation of the conveying speed during a measuring time range while said item is conveyed without a stoppage through said weighing pan and obtaining a weight measurement of said item, thereby allowing said weight measurement to be obtained with said item moving at a speed other than said predetermined regulated conveying speed; and after said measuring time span, re-activating regulation of the conveying speed and moving said item at said predetermined regulated conveying speed. And tensioning said conveyor to reduce said conveying speed of said item during said measuring time span dependent on a weight of said item.

However, in Abstract, col. 1, lines 60- col. 2, lines 40, col. 3, lines 30-60 thereof, Hayaski disclose(s) adjusting the conveyor belt speed based on the weight of the object thereon so that the conveyor belt is deactivated and activated. Thus, it would have been within the level of ordinary skill in the art to modify the method of Tsukasa et al. by adopting the teachings of Hayaski to obtain a variable speed conveyor belt that weighed objects on the fly.

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Re claim 3: Tsukasa et al. disclose said dynamic scale is used with a further processing station having a further processing station conveying speed(col. 35, lines 20-30), and regulating said conveying speed in said dynamic scale dependent on said further processing station conveying speed to produce an output of items from said dynamic scale which is approximately 66% of an output of items from said further processing station(col. 36, lines 35-50).

Re claims 4 and 6: Tsukasa et al. disclose evaluating said weight measurement of said item in said dynamic operating mode; and dependent on the evaluation of said weight measurement, directly transporting said item through said discharge region of said scale or switching into a further operating mode and statically weighing said item on said weighing pan in said further operating mode(col. 37, lines 10-58, col. 38, lines 35-58). And conveying said item at a constant conveying speed through said discharge region of said scale(col. 1, lines 50-col. 2, lines 10, col. 35, lines 20-50).

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukasa et al. and Hayaski as applied to claim 4 above, and further in view of Freeman et al.(U.S. PAT. 4956782 A).

None of Tsukasa et al. and Hayaski disclose reversing a conveying direction of said conveyor for statically weighing said item; and subsequently again reversing the conveying speed of said conveyor after statically weighing said item to convey said postal item through said discharge region of said scale. However, in col. 6, line 40-col. 7, line 25 thereof, Freeman disclose(s) reverse roller to enable the conveyor to move backward. Thus, it would have been within the level of ordinary skill in the art to modify the method of Tsukasa et al. and Hayaski by adopting the teachings of Freeman to obtain flexibility in moving items on the conveyor belt.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukasa et al. and Hayaski as applied to claim 1 above, and further in view of Feinland et al. (U.S. PAT. 5226496 A).

None of Tsukasa et al. and Hayaski disclose evaluating said weight measurement of said postal item and identifying if said weight measurement is likely to be imprecise; and if said weight measurement is likely to be imprecise, switching into a further operating mode and conveying said postal item directly through said discharge region of said scale and assigning a weight value to said postal item in place of said weight measurement, said weight value being higher than said weight measurement which is likely to be imprecise.

However, in col. 6, lines 1-30 thereof, Feinland et al. disclose(s) determining if an estimate computed is within the predetermined range and if not then using a second estimate. Thus, it would have been within the level of ordinary skill in the art to modify the method of Tsukasa et al. and Hayaski by adopting the teachings of Feinland et al. to obtain a weigh reading even when the weighing instrument is not completely accurate to facilitate the item processing.

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Further, official notice is taken that assigning a weight value to said postal item in place of said weight measurement is an old and well-known type of method to determine the postage in the postal scale and weight instrument art. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to assign a weight measurement to an article whose weight is unknown.

8. Claims 8-10, 21-23, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukasa et al., Manduley et al. and Feinland et al.

Re claims 8, 9 and 23: Tsukasa et al. disclose conveyor arrangement for conveying items having a conveyor belt driven by a motor(col. 14, lines 40-58); weighing pan being disposed between said entry region and said discharge region and said conveyor arrangement, in a dynamic operating mode, conveying a item with continuous movement without a stoppage in succession through said entry region, said weighing pan and said discharge region(Abstract, col. 2, lines 30-40,col. 13, lines 20-45, col. 35, lines 5-30, col. 37, lines 10-58, col. 38, lines 35-50, col. 39, lines 1-45, fig. 1, 47-60); and controller which operates said motor to move said belt at a predetermined, regulated conveying speed when an item enters said entry region(col. 17-19, line 45), said controller deactivating regulation of said conveying speed while said item is moving through said weighing pan during a measuring time span during which a weight measurement of said item is made, allowing said weight measurement to be made with said item moving at a speed other than said predetermined, regulated conveying speed, and, after said measuring time span, said controller re-activating regulation of said conveying speed to move said item on said belt through said discharge region(col. 13, lines 5-50, col. 34, line 29-58, col. 35, lines 5-50, col. 36, lines 35-50).

Tsukasa et al. do not explicitly disclose(s) scale housing having an entry region for items and a discharge region for items, and weighing pan connected to the weighing cell at the center of gravity. However, in Abstract, Fig. 1a thereof, Manduley et al. disclose(s) perspective view of the mail handling system that shows the housing for the scale. And in Col. 5, Lines 60-67, Col. 9, Lines 1-20, Manduley et al. show the center of gravity in the weighing tray. Further, Feinland et al. (Abstract)shows a load cell which is a weighing cell. Thus, it would have been within the level of ordinary skill in the art to modify the method of Tsukasa et al. by adopting the teachings of Manduley et al. and Feinland et al. to obtain more accurate weighing in an enclosed environment that prevents other objects from interfering with the scale's operation.

Re claims 10, 21 and 22: None of Tsukasa et al. and Feinland et al. explicitly disclose(s) a guide wall, a lower guide wall having a width substantially equal to a width of said conveyor belt and having a length which is less than a length of a conveying path for postal items formed by said conveyor belt, and a back wall for guiding a postal item. However, in Abstract, Col. 5, Lines 60-67, Col. 7, Lines 20-67, Fig 1a thereof, Manduley et al. disclose a wall of the tray. Thus, it would have been within the level of ordinary skill in the art to modify the method of Tsukasa et al. and Feinland et al. by adopting the teachings of Manduley et al. to obtain more accurate weighing by guiding the weighing piece to the center of the tray.

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Re claim 26: Tsukasa et al. disclose comprising a speed sensor mechanically connected to said motor and supplying a signal to said controller identifying a speed of said motor for use by said controller in regulating said conveying speed(claims 9,19 and 20).

9. Claims 11, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukasa et al., Manduley et al. and Feinland et al., as applied to claim 8 above, and further in view of Freeman et al.

Tsukasa et al. disclose a DC motor has a switchable direction of operation(col. 4, lines 30-col. 5, lines 40). None of Tsukasa et al., Feinland et al. and Manduley et al. disclose for moving said conveyor belt in a forward conveying direction and in a reverse conveying direction, and further comprising a driver connected between said controller and said motor for switching said motor, dependent on a signal from said controller, to selectively move said conveyor belt in one of said first conveying direction and said second conveying direction.

However, in col. 6, line 40-col. 7, line 25 thereof, Freeman et al. disclose(s) reverse roller to enable the conveyor to move backward. Thus, it would have been within the level of ordinary skill in the art to modify the method of Tsukasa et al., Feinland et al. and Manduley et al. by adopting the teachings of Freeman et al. to obtain flexibility in moving items on the conveyor belt.

10. Claims 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukasa et al., Manduley et al. and Feinland et al., as applied to claim 8 above, and further in view of Kalm et al. (U.S. PAT. 5901830 A).

Re claims 14-19: None of Tsukasa et al., Feinland et al. and Manduley et al. explicitly disclose a tensioning arrangement for setting a tension of said conveyor belt, said tensioning arrangement being mounted to said carrier plates. However, in Abstract, Col. 4, Lines 25-60, Cols. 1-4 thereof, Kalm et al. disclose(s) a tension adjuster setting the tension of the conveyor belt which is an idler roller that is vertically adjustable to set the tension on the conveyor belt. Thus, it would have been within the level of ordinary skill in the art to modify the method of Tsukasa et al., Feinland et al. and Manduley et al. by adopting the teachings of Kalm et al. to obtain better conveyor belt operation.

Re claim 20: None of Tsukasa et al., Feinland et al., Manduley et al. and Kalm et al. explicitly disclose glide coating is comprised of plastic and back wall of said weighing pan is comprised of a one-piece sandwich structure. However, the coating of the glide and the construct of the weighing pan would not directly impact the functionality of the invention. And different size and shapes of weighing pans are known in the art and are used throughout various industries from the grocery industry to factory installations weighing complex compounds. Thus, it would have been obvious to one with an ordinary level of skill in the art to employ different materials and different sizes and shapes of scales to get the benefit of using uniquely developed scales that meet specialized industry and business needs.

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11. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukasa et al., Manduley et al. and Feinland et al., as applied to claim 8 above, and further in view of Cordery et al.(U.S. PAT. 4903788 A).

Re claim 24: None of Tsukasa et al., Feinland et al. and Manduley et al. disclose weighing pan is comprised of flexurally and torsionally stiff lightweight material. However, in Col.3, Lines 1-20 thereof Cordery et al. disclose a plurality of aluminum or other stiff material that provide light weight and stiffness to the tray. Thus, it would have been within the level of ordinary skill in the art to modify the method of Tsukasa et al., Feinland et al. and Manduley et al. by adopting the teachings of Cordery et al. to obtain a weighing pan that transmits weight appropriately to the load cell.

Re claim 25: None of Tsukasa et al., Feinland et al., Manduley et al., and Cordery et al. explicitly disclose glide coating is comprised of plastic and back wall of said weighing pan is comprised of a one-piece sandwich structure. However, the coating of the glide and the construct of the weighing pan would not directly impact the functionality of the invention. And different size and shapes of weighing pans are known in the art and are used throughout various industries from the grocery industry to factory installations weighing complex compounds. Thus, it would have been obvious to one with an ordinary level of skill in the art to employ different materials and different sizes and shapes of scales to get the benefit of using uniquely developed scales that meet specialized industry and business needs.

12. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukasa et al., Manduley et al. and Feinland et al., as applied to claim 8 above, and further in view of Sakai et al. (U.S. PAT. 5754361 A).

Re claim 27: None of Tsukasa et al., Manduley et al. and Feinland et al. disclose wherein said speed sensor comprises an encoder. However, in Col. 8, Lines 60-67, Col. 9, Lines 1-15, thereof Sakai et al. disclose signals from speed sensor encoders are input into the controller. Thus, it would have been within the level of ordinary skill in the art to modify the method of Tsukasa et al., Manduley et al. and Feinland et al. by adopting the teachings of Sakai et al. to obtain high sensitivity speed control of the conveyor belt.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Debra F. Charles whose telephone number is (703) 305-4718.

The examiner can normally be reached on 9-5 Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on (703) 308-0505. The fax phone numbers for the


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organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Debra F. Charles
Examiner
Art Unit 3628

dfc
June 29, 2003


HYUNG SOUH
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